

**What is claimed is:**

1. A heat sealable tape comprising a copolymer of tetrafluoroethylene and at least about 15% by weight of a highly fluorinated monomer, said copolymer having a melt viscosity of no greater than about 1000 Pa•S at 372°C and an application temperature of no greater than about 250°C.
2. The heat sealable tape of claim 1 wherein the melt viscosity is no greater than about 500 Pa•S.
3. The heat sealable tape of claim 1 wherein the melt viscosity is no greater than about 200 Pa•S.
4. The heat sealable tape of claim 1 wherein said highly fluorinated monomer comprises at least about 20% by weight of said copolymer.
5. The heat sealable tape of claim 1 wherein said highly fluorinated monomer is selected from the group consisting of trifluoroethylene, hexafluoropropylene, monochlorotrifluoroethylene, perfluorobutyl ethylene, and perfluoro(alkyl vinyl ether).
6. The heat sealable tape of claim 1 wherein said highly fluorinated monomer is perfluoro(ethyl vinyl ether).
7. The heat sealable tape of claim 1 further comprising a carrier sheet.
8. A continuous roll of said heat sealable tape of claim 6.
9. The heat sealable tape of claim 1 wherein the tape has a thickness of from about 25 µm to about 500 µm.
10. The heat sealable tape of claim 1 wherein the tape has a width of from about 6 mm to about 30 cm.
11. A seam formed from two sections of sheet material wherein each sheet comprises at least one fluoropolymer surface and said sections are sealed one to the other by application of heat sealable composition over one fluoropolymer surface of each section, said heat sealable composition comprising a copolymer of tetrafluoroethylene and at least about 15% by weight of a highly fluorinated monomer, said copolymer having a melt viscosity of no greater than about 1000 Pa•S at 372°C and an application temperature of no greater than about 250°C.
12. The seam of claim 11 wherein at least one of said sheets is a self-supporting film of fluoropolymer.
13. The seam of claim 11 wherein at least one of said sheets is a fabric having said at least one fluoropolymer surface.

14. The seam of claim 13 wherein said fabric with said at least one fluoropolymer surface is formed by the application of a fluoropolymer coating to said fabric.

5           15. The seam of claim 13 wherein said fluoropolymer surface is formed by application of a self-supporting fluoropolymer film to said fabric.

16. The seam of claim 13 wherein said fabric is woven.

17. The seam of claim 13 wherein said fabric is non-woven.

10           18. The seam of claim 11 wherein said sections are sealed in a butt seam.

19. The seam of claim 11 wherein said sections are sealed in a lap seam.

20. A building structure fabricated from sheet material comprising the seam of claim 11.

15           21. Manufacturing equipment fabricated from sheet material comprising the seam of claim 11.

22. A process for sealing a seam between two sections of sheet material wherein each section has at least one fluoropolymer surface, said process comprising:

20                       forming a band of heat sealable composition comprising a copolymer of tetrafluoroethylene and at least about 15% by weight of a highly fluorinated monomer, said copolymer having a melt viscosity of no greater than about 1000 Pa•S at 372°C and an application temperature of no greater than about 250°C;

25                       positioning said band over said seam between said two sections of sheet material such that said heat sealable composition contacts one fluoropolymer surface of each section;

30                       heating said band to a temperature no greater than 250°C sufficient to seal said seam;

35                       allowing said heat sealable composition to cool.

23. The process of claim 22 wherein said band is formed by applying said heat sealable composition onto a carrier sheet to form a heat sealable tape.

5           24. The process of claim 23 wherein said heating of said band of said heat sealable composition is performed by positioning said tape over said seam and heating said tape.

          25. The process of claim 24 wherein said heating of said tape is performed by contacting the carrier sheet of said tape with a heated  
10 element.

          26. The process of claim 24 further comprising applying pressure with said heated element to said carrier sheet during said heating of said tape.

          27. The process of claim 26 wherein said pressure is no greater  
15 than 5 psi.

          28. The process of claim 26 wherein said carrier sheet is removed after allowing said heat sealable composition to cool.

          29. The process of claim 22 wherein said seam formed from said two sections of sheet material is a lap seam.

20           30. The process of claim 22 wherein said seam formed from two sections of said sheet material is a butt seam.